

REMARKS

Claims 21-22 are now pending in the application. Claims 1-20 have been withdrawn. Claims 23-24 have been cancelled. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 21 and 23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Belliveau (U.S. Pat. No. 6,441,888). Claim 21 stands rejected under 35 U.S.C. § 102(b) as being anticipated by King et al. (U.S. Pat. No. 5,828,449). Claim 22 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Thrailkill (U.S. Pat. No. 5,822,053). Claim 24 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Polidor et al. (U.S. Pat. No. 5,690,417). These rejections are respectfully traversed.

Belliveau discloses a flashlight using a plurality of light sources (LEDs). In Belliveau, all the light sources light up concurrently because they are used for the flashlight. Accordingly, they are not operable to project a desired light pattern. Furthermore, numeral 127, which the Examiner indicated as a desired light pattern, is merely arrow showing the direction of the light from each of the LEDs 112a-f (see col. 8, lines 30-33).

In addition, in Belliveau, the plurality of LEDs 112a-f are arranged on a curved surface, not on a flat surface (see flexible substrate 112 in Fig. 2B, and col. 8, lines 34-31). Specifically, the flexible substrate 112 on which the LEDs 112a-f are arranged is deformed

by the pressure to the center region thereof. Meanwhile, numeral 122, which the Examiner indicated as a flat surface, is the battery, irrelevant to the light source arrangement surface.

Kind discloses ring illumination reflective elements. In King, Figs. 3 and 4 clearly show light sources are arrayed radially inward, not radially outward. Furthermore, to project a desired light pattern is not disclosed nor suggested. Numerals 25 and 26, which the Examiner indicated as a desired light pattern, merely show light beams from the light emitting elements 50 (see col. 6, lines 36-43, col. 7, lines 28-30).

Regarding Claim 22

Thrailkill discloses an LED light source for a machine vision system. However, numerals 102-104, which the Examiner indicated as a desired light pattern, merely show the light distributions by the LEDs arranged into each of quadrants A-C, as shown in Fig. 8. Furthermore, numerals 130-133, which the Examiner indicated as the plurality of divided ranges, merely show boundary lines representing the boundary of a region (area of even illumination) within which the intensity of the light will be between 80%-100% of the peak optical power.

Therefore, Thrailkill fails to disclose or suggest the features of the claimed invention such as “to project a desired light pattern”, “dividing a projection range into a plurality of ranges in a direction for forming the light pattern” and “aligning groups of light sources respectively covering the plurality of divided ranges in a direction perpendicular to the direction for forming the light pattern.

Application No. 10/617,198
Amendment dated January 3, 2006
After Final Office Action of October 20, 2005

Docket No.: 5077-000069/US/DVA

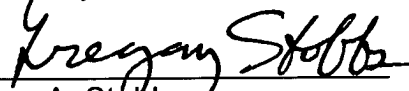
CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0750, under Order No. 5077-000069/US/DVA from which the undersigned is authorized to draw.

Dated: January 3, 2006

Respectfully submitted,

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